Armored Motor Truck For Use of the Rebels

Is Built in Juarez and Can Be Operated Either On the Railroad or For Work Across Country—Will Carry Machine Guns With Men Protected By Heavy Sheets of Steel From Bullets of Federals.

AN armored automobile truck that will run on railroad tracks or across country is being built by the rebels in Juarez for use in the attack on Torreon.

The truck has especially designed wheels, with flanges on either side and rubber in the center. The flanges extend down below the rubber about an inch on each side and, when the machine is used on the ordinary road, the rubber in the center will prevent them sinking too deep to retard progress. When it is desired to operate the car on the railroad, the machine's weight will be borne on top of the rails by the rubber and the flanges will keep the car in place.

An ordinary delivery truck of a powerful engine force was purchased for the experiment and over the car, heavy sheet iron was bolted, something like an old fashioned prairie schooner top. This was covered with a heavy sheeting of asbestos and on the outside another coating of steel has been placed. Loopholes have been cut through the iron for machine guns and rifles. The armor is said to be of sufficient strength to protect the men absolutely from rifle bullets and it is the intention to run the armored car right into a bunch of federals, into whom a machine gun fire will be poured by the sheltered rebel operators.

The car is about completed and it is said that the attack on Torreon was delayed for its completion as much as anything else.

MOTORISTS' PROBLEMS ARE SOLVED HERE

By WILLIAM H. STEWART, Jr.

Who as President of the Stewart Automobile Academy of New York City, is regarded as the leading authority in Motor Car Education in this country.

Let us solve your motoring problems and discuss your comments. Tell us of your experiences for the benefit of the other fellow. Correspondence invited for publication every Week-End.

Motoring Department, The Herald—I am the owner of a Ford car, using 30x3 and 30x3½ tires. I am contemplating using over-size tires. Would this affect the power of my car in any way, particularly in climbing hills?
W. F. FULLER.

The use of over-size tires should not materially affect the power of your car in climbing hills. The change in gear ratio is so slight that it should hardly be noticeable.

* * *

Motoring Department, The Herald—I have a car and the No. 2 cylinder has no compression or power. I find that the exhaust valves does not seat. In other words, when it is forced up it will not come down. Do you suppose the spring has lost its strength or is the valve worn out?
READER.

The valve stem is probably bent and should be removed and straightened. If bent or worn badly it would be more advisable to use a new valve. In replacing valves care should be taken to reseat properly. If all the valves are not well seated poor compression and loss of power will result.

* * *

Motoring Department, The Herald—Will you please advise me whether it is more economical to purchase non-skid tires for my car, or to use the plain tread tire and chains during the winter weather? I use my car considerably, both in and out of the city, and have always believed that chains are very injurious to tires. I am also told that if I use non-skid tires I should not use chains. Will you please advise what is best? OWNER.

Non-skid tires are good on city pavements when wet. In snow or mud, however, it is necessary to use chains. Since you are using your car on country roads as well as in the city it would seem advisable that you be prepared to use chains. The use of chains on plain tread tires is more economical. On non-skid tires the chains are more apt to tear the tire cover.

* * *

Motoring Department, The Herald—Kindly let me know if I can use paint or enamel to paint engine of automobile.

Also please let me know what causes white specks like salt grains in circulation system.

I use spring water, not Croton water. Please let me know if water would cause said white specks.

Thanking you in advance, I remain,
J. FLYNN.

It is not advisable to use ordinary paint on the cylinder castings. A thick coat of paint will prevent radiation. Supply stores carry in stock a thin cylinder paint which has no material effect. Would suggest that you use this.

It is not advisable to use spring water in the cooling system. This water contains minerals which wwill form a scale or deposit in the water jackets and radiator. It is best to use soft water, preferably rain water.

* * *

Motoring Department, The Herald—Will you kindly enlighten me as regards the "four cycles of a motor." What is the meaning of same?

Hoping you will explain the above and thanking you in advance.
CHAUFFEUR.

The socalled "four cycles of a motor" consists of the suction stroke, the compression stroke, the firing stroke and exhaust stroke.

The suction or down stroke of the piston takes in the charge of gas, the compression or up stroke of the piston compresses the charge, then the spark is introduced, and the ignition or power stroke takes place. After this, the exhaust or up stroke of the piston frees the cylinder of the products of combustion, and then repeats.

While the term "cycle" means a completion of events, nevertheless, in its application to the gasoline engine, each stroke of the piston has become familiarly known as a cycle; hence the four cycle type engine, meaning four operations in the delivery of one power impulse.

* * *

Motoring Department, The Herald—Here is one that is causing me a great deal of thinking.

Gasoline motor runs A-1 on front cylinders, but when running on rear cylinders only continually back fires. Motor is timed as follows: 1-2-4-3. One exception, however, is that if you give the rear cylinders a richer mixture they will not bshave as above stated, but power is lost in front cylinders.

Your considcration and reply are respectfully solicited. W. E. B.

It appears that there is probably an air leak in the manifold. Perhaps the gasket has blown out where the manifold is attached to the rear cylinders. An air leak in the manifold at this point would rob the two rear cylinders of the proper mixture.

Would suggest that you also inspect carefully the valves.

* * *

Motoring Department, The Herald—I have a large Packard touring car which I keep in a cold garage. Last winter I had much trouble starting. I primed with gasoline, put hot cloths in manifold, but results were very unsatisfactory. Frequently the carburetor would get on fire from back firing, then she would stall and the engine would have to run some time before getting sufficient power. I formerly had a Thomas Forty. Had the same trouble. This winter I drain the radiator and fill same in the morning with hot water. The engine starts as easy as it does in the summer and I get the full power at once.
GEO. R. HOWELL.

By using hot water the cylinders are warmed, and vaporation of the gasoline takes place very readily. This accounts for the easy starting.

* * *

Motoring Department, The Herald—I have a model 28 Jackson which is a two passenger car and has a one-hundred inch wheel base. I am looking into the advisability of putting on a five passenger body. Is any other car's five passenger body suitable? I have seen other cars in which the body extended one to two feet beyond the rear axle. Is this a bad point? A Ford carries a five passenger body on a one hundred inch wheel base. My chassis and springs appear to be stronger. Hoping to be favored with your advice. R. A. KOEGLER.

It is not advisable to allow the body to extend too far beyond the rear axle. By doing so the car will skid more readily and also sway when attaining speed.

A short coupled five passenger body should fit your chassis. It cannot be stated, however, that any body will fit. This is a point which you must decide by measurements.

In changing bodies you will undoubtedly, find it necessary to use heavier springs in the rear. If you do not care to instal new springs the old ones can be strenthened by installing an extra leaf. If the present springs are heavy perhaps this will not be necessary.

* * *

Motoring Department, The Herald—On a Winton car I replaced a broken side rod. I found after a while that it fitted looser than the other, and measured from the rear axle to the fitting and found the new rod to be about an inch and a half short. I then proceeded to adjust the new short one until I thought they were both the same length, and since then I have had several punctures and a blow out on the rear wheel, where I put in the new side rod. Also, when I am running along without power, it seems as though the drive shaft has too much play or something is loose.

Would you kindly inform me through your motorists' column how I can true my wheels, or how could I find out whether they are true or not; also do you think this caused my tire trouble?
J. G.

Would suggest that you lengthen the new rod to the same length as the old one. If the adjustment of the rod does not permit this you should instal a new one of proper size. The rear axle must be in alignment in order to obtain proper service. The trouble with tires and other parts constituting the rear system has, undoubtedly, been due to this misalignment.

* * *

Motoring Department, The Herald—What is the voltage contained in an ordinary dry cell battery?

Is there any instrument that shows the strength?

Would a weak coil on a motor tax the strength of the batteries more than a normal coil, and cause them to be exhausted sooner?

I use four batteries on my 30 h. p. car, with low tension magneto and coil. Would the battery service be increased or decreased proportionately by the use of more or fewer batteries?

The same make of batteries show longer life in one set than the previous or subsequent set. Could this be imperfection in the manufacture?

How can a weak coil be best strengthened?
COILS AND BATTERIES.

A dry cell in good condition should show approximately 1 1-2 volts and 25 amperes. An ammeter is used for testing the amperage. The voltage test will not indicate the true condition of a dry cell.

A defective coil will over tax and rapidly exhaust the batteries.

Would suggest that you increase the number of dry cells to six. This will be found more economical. Dry cells are not very reliable. They deteriorate rapidly, even when not in use.

There is no doubt but that you receive better cells at one time than at another. This imperfection may be due to the manufacturing process, or it may be due to the fact that you sometimes obtain stale cells.

A weak coil cannot very well be strengthened. The coil you have is probably defective and in need of repairs. Would suggest that is be turned over to the maker for a thorough overhauling.

* * *

HELPFUL HINTS TO MOTOR OWNERS

All connections of the steering mechanism should be carefully inspected. They should be adjusted and lubricated at frequent intervals. One's life depends upon each connecting link being kept in perfect condition, hence the necessity of frequent inspection.

* * *

When the electric self starting device fails to start the engine after reasonable trial, the trouble should be located without delay. One cannot expect too much from a small battery. The self starter is not supposed to crank the engine indefinitely.

* * *

Considerable increased tire mileage can be obtained through the careful handling of a car. If the driver strats and stops his car with a jerk, and tries to turn corners on two wheels, he can soon expect blow outs. It is estimated that by careful driving one can increase tire mileage fully thirty percent.

* * *

During cold weather care must be taken not to over prime the motor. Gasoline does not vaporize readily in low temperature. If over priming is suspected, it is well to open the compression reliefs, in order to clear the cylinders.

* * *

When using alcohol in the cooling system to prevent freezing it is well to remember that alcohol evaporates quickly. When refilling, a sufficient amount of alcohol must be added to keep the solution normal.

Eleven Cars Are Going to the Dam

Full Quota For the February 7 Trip

ELEVEN cars have been "signed up" for the automobile trip to Elephant Butte dam on Feb. 7 and 8.

This is as many people as can be accommodated at the government boarding house at the damsite, and closes up the trip, unless some of those who have made arrangements should fail to go. Fifty people can be furnished with sleeping accommodations and the number of passengers for the 11 cars signed will take all these accommodations. Meals can be furnished for more and in the event that any others would care to make the trip and spend the night under blankets in the open, they will be welcomed.

The party will leave El Paso Saturday morning, the 7th, at 9 oclock, and the run to the dam will be continuous, with the exception of a stop at some one of the ranches en route, to eat lunch, which will be carried in baskets.

The afternoon and night will be spent at the damsite and the party will start on the return to El Paso on Sunday morning some time after breakfast. Lunch will be taken on the road back.

The trip each way is 118 miles. A mechanician and a photographer will be taken with the party. The former will be available in case of trouble to any of the cars; the latter to make photographs of the dam and of the party.

Gasoline can be secured at the dam for the return trip, but all those making the trip will do well to carry their own extra lubricating oil. There is plenty of water all along the route, every few miles, for radiator or drinking purposes.

The cars signed up for the trip are as follows:

R. H. Rinehart, Chalmers "36."
J. W. Stockard, Hudson "six."
D. C. Crowell, Cadillac "30."
Geo. R. LeBaron, Overland "30."
C. B. Stevens, Chalmers "six."
R. B. Orndorff, Chalmers "36."
L. M. Lawson, Cadillac "40."
H. P. Jackson, Studebaker "30."
Fred Hewitt, Buick "30."
H. H. Bailey.
Walter Kohlberg, Hudson "six."

Low Cost of Concrete Roads

Editor El Paso Herald:

I saw a notice the other day to the effect that an Arizona county would lay many miles of concrete highway, after their commissioners had inspected the concrete roads of Wayne county, Mich.

I enclose a clipping from the New York Herald of Jan. 18, on the subject of these same roads. Note their low maintenance cost.—With cement, stone and sand locally available at low cost, these roads may be better for our county. A short piece should be laid where it would get much travel as an experiment. I have no interest in selling cement, stone, sand or anything else pertaining to road building, but do appreciate the value of good roads. The low maintenance charge is what appeals to me.

Thomas Franklin.

The clipping referred to is in part as follows:

Road commissioners and engineers who are struggling with the problem of building roads that will stand up under a large volume of automobile and motor truck traffic with teaming will find much information of interest and value in the seventh annual report of the road commissioners of Wayne county, Michigan.

Considering the criticisms that have been made against concrete roads, it is interesting to find that in the very beginning of this report the commissioners say:

"With the completion of the Plymouth road we have abandoned every other form of construction and have adopted concrete as our standard. We feel that our experience of the last six years warrants us in arriving at this determination, based on its general satisfaction and its annual cost as compared with other forms of construction."

The report says the only serious objection that so far has been advanced against concrete roads is the development of cracks, and the commissioners do not consider this is a material objection, as the cracks can be repaired readily with a little hot tar and the formation of cracks can be minimized by careful workmanship. A careful count was made of all cracks that had occurred in more than 45 miles of roads put down before January, 1913, and it was found that there were 500 transverse cracks and 1156 longitudinal cracks in 9121 25 foot sections of concrete laid during 1909, 1910, 1911 and 1912. There was one crack for every five and one-half sections, or in an area of about 1650 square feet.

The traffic census taken on the roads leading out of Detroit produced some interesting results. They show that the average number of vehicles passing over the roads at any one point in the 24 hours was as follows: Single horse, 195; team, 207; automobile runabout, 137; touring car, 512; motor truck, 42; motorcycle, 59.

Commenting on these figures the commissioners say:

"We regard as remarkable the showing made by motor trucks, which are introducing a further complication into the problem of road building and maintenance. The motor truck as a means of transportation is certain to increase at a rapid rate for both city and country use, and necessitates a better foundation constructed in many localities. We believe we are economically developing the form of construction to take this wear."

Under the heading of maintenance it is stated that the approximate cost of tarring all longitudinal and transverse cracks that developed in the concrete roads built previous to 1913 was $1450, $82.72 a mile per year.

By way of comparison it is shown that the cost of resurfacing one mile of tar-macadam road was $3,617.16, nearly double the total cost of repairing 45 miles of concrete road.

AUTOMOBILE SALES AND NOTES OF AUTO DRIVERS

There was little activity in local automobile circles during the week. Many dealers are waiting for shipments of new cars.

H. C. Sands, of Carlsbad, N. M., came to El Paso this week, purchased an Overland "79" and drove home in it.

James F. Primm, vice president of the First National bank, will be at the wheel Monday of a new Abbot-Detroit roadster, 1914 model. It arrived Friday.

John Burnsides, of Silver City, is driving a new Hudson six, "54." The car was bought here and driven to the New Mexico town. John Hutchins, who delivered it this week, says he struck a heavy snow storm between Deming and Silver City. When the machine was put away for the night in a Silver City garage, the tires, which were wet, froze to the floor. It took three buckets of boiling water to loosen them the next morning.

Mr. and Mrs. Bruno Totsyc, of Roswell, N. M., are in El Paso. They drove down in their Buick touring car.

Earl Mitchell, of Pecos, Tex., bought an Overland "79" here this week. The car was delivered "overland."

Ray Harrell, driver for the Chihuahua Mining company, drove into El Paso Thursday night from Chihuahua. He made the trip in a Simplex and had no trouble enroute. The journey was made in 18 hours.

T. Miner, of Bisbee, drove to El Paso this week in his American touring car.

H. M. Adams, of El Paso, is driving a new Overland "79."

A carload of Hudson cars is due to arrive here this week from the factory.

J. A. Pruitt, of Marfa, is a recent purchaser of an Overland "79."

MOTORCYCLE NOTES.

Fire chief Stanton, of Norwich, Conn., uses a motorcycle in responding to all fire alarms.

The report of motorcycle policeman Cooley, of Aurora, Ill., shows that during 1913 he rode his motorcycle 11,964 miles, responding to 2583 calls.

It is the plan of commissioner Dies, of Memphis, Tenn., to replace the horses now used by the ten city inspectors with motorcycles.

Two Hannibal, Mo., young men are planning a motorcycle trip which will cover about 50,000 miles.

The Railway and Light company, of Rochester, N. Y., uses 25 motorcycles in its various departments.

Mrs. Edna B. Linendoll, of Hammond, Ind., recently made a 2200 mile motorcycle trip to Omaha and Kansas City.

"We find motorcycles indispensable in our work," says T. C. Weber, engineer of the Spokane Gas and Fuel company, of Spokane, Wash.

R. L. Bacon, of Pittsburg, Pa., has just completed a motorcycle trip to Milwaukee, Wis.

So successful was the New Year's day Tucson-Oracle motorcycle run, from Tucson, Ariz., to the summer resort at Oracle, that it has been arranged to make the run an annual event.

A motorcycle street sweeper, which it is said will do the work of 21 men, is being demonstrated in New York city.

Paul C. Derkum, winner of the San Diego-Phoenix road event, says that the engine of his motorcycle was running as perfectly at the end of the race as when he started out.

Chris Lauridson, of Fairbanks, Alaska, is making a motorcycle trip to Seattle, Wash. Lauridsen is said to be the first rider to attempt this trip.

Paul A. Corney recently started on a motorcycle trip from northern Wisconsin to Galveston, Texas. He expects to reach the southern city in 15 days.

To Race 500 Miles With No Stop For Anything

This Will Be the Effort of Harry Grant at Indianapolis; Ray Harroun Is Out of the Racing Game; Says Too Many Specters Come to Get On His Nerves, When He Recalls Fate of Others on Course.

INDIANAPOLIS, Ind., Jan. 31.—To negotiate the next 500 mile race on the motor speedway here without a stop or tire change will be the aim of Harry Grant, two time Vanderbilt cup winner, who recently imported a car from England for the contest. Grant's car will be one of the lightest in the race, a fact that will make both fuel and gutta percha consumption very light. Barring accidents, there is no reason why a non stop performance is not perfectly possible, it is thought.

The motor of Grant's machine, though a six cylinder, is most diminutive, measuring only 276 cubic inches, with a bore and stroke of 3 1-8x6. Weight of the car over all, with tanks full, is under 2500 pounds. Extra sized tires will be used, and enough fuel carried for 500 miles. No stop, therefore is expected to prove necessary, except for extraordinary reasons, such as a smashup or unforeseen derangement of motive and driving mechanism.

Grant's backer, William F. Ziegler, of New York, plans the entry of an additional car, to be driven by J. B. Marquis, a mechanicism last year, it is reported.

Out of the Game.

"Will you agree to drive that test mile?" was asked when Ray Harroun agreed, for a sum running into five figures, to make three racing cars do laps on the speedway one second or more faster than that famous course has ever been driven before or no pay.

"I will not," said the famous racing man in his most emphatic tones. "I am through with racing—so far as actual driving is concerned."

"What's the matter—lost your nerve?" Harroun answered "Yes—lost my nerve."

Continuing, the hero of many hard fought contests, said: "I suppose I have as much nerve, or whatever you may call it, left as most men who have driven as much as I have—seen as much as I have seen. But—well, racing is for the youngsters. It's for those who have yet to learn some things about racing that—well, that they'd rather not know after they have learned.

"To drive a race like the Memorial day grand prize event—500 miles on the Indianapolis speedway, and drive to win—well, a fellow must have less to forget than I have before he can do it, that's all.

Too Many Memories.

"Yes, less to forget," repeated Harroun. "He must not have to down visions and memories and horrors that will flash before him at every turn of the track—here, where a pal was maimed; there, where another pal, though a bitter rival, was killed; here, where your mechanician was torn from his seat and went hurtling over the track in front of the oncoming demons; there, where a tire burst and your car went through the fence—your life saved by a hair. The place where the hole was made in the fence is not concealed from you as you speed by—the newer paint leaves the tell tale marks and each of the hundreds of times you pass the place, your muscles tighten and your nerves strain at an imaginary sound—will another tire g othis round or the next?

"No, I could never drive another race. I take the keenest pleasure in designing and tuning up racing cars for the big events. And I have no compunction about seeing the youngsters drive them. The very fact that they have not learned fear is their factor of safety. And they may drive many thousands of miles before one of those awful scenese flashes across their vision that will deprive them also of that immunity from fear. But when that time comes—my advice is quit."

To Test the Joint Public Road

United States To Join States

AS a preliminary step towards the improvement and maintenance of the first through road under the supervision of the United States government, a scouting party composed of officials of the office of public roads, the American Highway association and various state highway departments will motor from Washington to Atlanta, Ga., early in February.

With the cooperation of the highway officials and supervisors of the states traversed by the road, government engineers are to improve and maintain 850 miles of highway, giving an actual demonstration of what can be accomplished if the states and government work together.

The Rio Grade Military Road

An Organization Formed To Boost

EL PASO was not represented at the meeting at Eagle Pass recently, to take steps to secure a military highway down the Rio Grande from this city to Brownsville, but there was a large delegation from other points along the proposed road. Writing of the meeting and of the route, D. E. Colp, of the Highway League of Bexar county, says:

"I am very sorry that El Paso was not represented at the Eagle Pass meeting of the military highway and the Southern National. We had a splendid meeting. I believe it was the largest gathering ever got together in this part of the state. The people were very enthusiastic and every county save one from Brownsville to Eagle Pass was represented, but there was no representation west of Val Verde.

"An organization was formed and each county will be asked to select a delegate to go to Washington to law this matter before the committee on military affairs, and each county will pay the expense of its delegate. S. A. Piper, of Mission, was elected secretary and will take up this matter through the commercial organizations of the different counties between Del Rio and El Paso. Mason Maney, of Pearsall, was elected president.

"I hope that El Paso's commercial organization will get behind the proposition and render such assistance as possible. I feel sure that the project will be a success as we all know it will be of untold value to the government as well as to Texas."